



Polymer Material Properties

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☐ Generic (ABS, ...)

☐ Trade Name

 from R&D
to Production
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 Search for
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[List of Suppliers](#)

Materials Home

General Information

[Polymer Home](#)[Glossary](#)

Material Science

[Overview](#)[Characteristics](#)[Comparisons](#)

Selection Criteria

[Applications](#)[Flow Characteristics](#)[Datasheet Primer](#)

Major Categories

[Polymer Index](#)[History Timeline](#)[List by Process](#)[List by ThermoP/S](#)

Specific Polymer

[Category / Grades](#)[Datasheet](#)[Supplier Info](#)

Resources

[Bibliography](#)

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Suggested Reading

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Ethylene vinyl alcohol

State: ethylene / vinyl alcohol

Material Properties

Mechanical Properties

Elastic Modulus (MPa)	2070 - 2657	compressive	D638
	38 - 95	at break	D638
Tensile Strength (MPa)	51 - 72	at yield	D638
Flexural Strength (MPa) at yield or break	2 - 2		D790
Elongation at break (%)	180 - 330		D638
Izod Impact (J/cm of notch) 1/8" thick specimen unless noted	0.5 - 0.9		D256A

Physical & Electrical Properties

		Conditions	
		State	ASTM
Specific Gravity	1.12 - 1.2		D792
Water Absorption (% weight increase)	6.7 - 8.6	after 24 hrs	D570

Processing Properties

		Conditions	
		Type	ASTM
Melt Flow (gm/10 min)	0.8 - 14		D1238
Melting Temperature (°C)	49 - 72	T _g , amorphous	
Melting Temperature (°C)	142 - 191	T _m , crystalline	
	185 - 249	injection molding	
Processing Temperature (°C)	185 - 249	extrusion	
Compression Ratio	3 - 4		

[Top of Page](#)

Suppliers

[Eval Co. of America](#)

Lisle, IL 800-423-9762

[Top of Page](#)
 Design Formulas
for Plastics
Engineers , , by
Rao, N.S.

 Plastics for Engineers:
Materials, Properties,
Applications , , by
Domininghaus, H.

 Engineering Materials:
Properties and Selection , 6th
ed., by Budinski, K.G.,
Budinski, M.K. (ed.)